

**What is claimed is:**

1.           A mixed flow turbine comprising:  
            a hub attached to a rotation axis; and  
            a plurality of rotor blades, each of which is  
5   attached to said hub in a radial direction,  
            wherein said hub is rotated based on fluid  
            supplied to a rotation region of said plurality of  
            rotor blades, and  
            each of said plurality of rotor blades has a  
10   curved shape that convexly swells on a supply side of  
            said fluid.
  
2.           The mixed flow turbine according to claim 1,  
            wherein each edge of said plurality of rotor blades has  
15   first to third points in the curved shape on the supply  
            side of said fluid,  
            said first point is a point where said rotor  
            blade is attached to said hub,  
            said third point is a point as a farther point  
20   from said first point,  
            said second point is a middle point between  
            said first and third points,  
            the rotation radius of said third point from  
            said rotation axis is larger than that of said second  
25   point from said rotation axis,  
            the rotation radius of said second point from  
            said rotation axis is larger than that of the midpoint

on the straight line connecting between said first point and said third point from said rotation axis,

the rotation radius of said midpoint from said rotation axis is larger than that of said first point  
5 from said rotation axis.

3. The mixed flow turbine according to claim 1, wherein each edge of said plurality of rotor blades has first to third points in the curved shape on the supply  
10 side of said fluid,

said first point is a point where said rotor blade is attached to said hub,

said third point is a point as a farther point from said first point,

15 said second point is a middle point between said first and third points,

the rotation radius of said second point from said rotation axis is larger than that of said third point from said rotation axis,

20 the rotation radius of said third point from said rotation axis is larger than that of the midpoint on the straight line connecting between said first point and said third point from said rotation axis,

the rotation radius of said midpoint from said  
25 rotation axis is larger than that of said first point from said rotation axis.

4. The mixed flow turbine according to any of claims 1 to 3, wherein a flow angle of said fluid decreases to be convex downwardly from a side of said hub to a side of a shroud.

5

5. A rotor blade used in a mixed flow turbine comprising:

a plurality of rotor blades, each of which is attached to a hub in a radial direction,

10 wherein said hub is rotated based on fluid supplied to a rotation region of said plurality of rotor blades, and

each of said plurality of rotor blades has a curved shape that convexly swells on a supply side of  
15 said fluid.

6. The rotor blade according to claim 5, wherein each edge of said plurality of rotor blades has first to third points in the curved shape on the supply side  
20 of said fluid,

said first point is a point where said rotor blade is attached to said hub,

said third point is a point which is a farther point from said first point,

25 said second point is a middle point between said first and third points,

the rotation radius of said third point from

said rotation axis is larger than that of said second point from said rotation axis,

the rotation radius of said second point from said rotation axis is larger than that of the midpoint  
5 on the straight line connecting between said first point and said third point from said rotation axis,

the rotation radius of said midpoint from said rotation axis is larger than that of said first point from said rotation axis.

10

7. The rotor blade according to claim 5, wherein each edge of said plurality of rotor blades has first to third points in the curved shape on the supply side of said fluid,

15 said first point is a point where said rotor blade is attached to said hub,

said third point is a point as a farther point from said first point,

said second point is a middle point between  
20 said first and third points,

the rotation radius of said second point from said rotation axis is larger than that of said third point from said rotation axis,

the rotation radius of said third point from  
25 said rotation axis is larger than that of the midpoint on the straight line connecting between said first point and said third point from said rotation axis,

the rotation radius of said midpoint from said rotation axis is larger than that of said first point from said rotation axis.